

IN THE CLAIMS

Please amend the claims as follows. This listing of claims replaces all prior versions and listings.

1. (Withdrawn and currently amended) An isolated polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2 (~~S1 isolate~~), SEQ ID NO:3 (~~JL isolate~~), SEQ ID NO:4 (~~RJL1 isolate~~), SEQ ID NO:5 (~~L2 isolate~~), and SEQ ID NO:6 (~~composite~~).

2. (Canceled).

3. (Currently amended) An isolated nucleic acid encoding the polypeptide of claim 1a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, and SEQ ID NO:6.

4. (Canceled).

5. (Currently amended) An isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of the nucleotide sequence of SEQ ID NO:8 (~~S1 coding sequence~~), the nucleotide sequence of SEQ ID NO:10 (~~JL coding sequence~~), the nucleotide sequence of SEQ ID NO:11 (~~RJL1 coding sequence~~), and the nucleotide sequence of SEQ ID NO:9 (~~L2 coding sequence~~).

6. (Withdrawn) An antibody that specifically binds the polypeptide of claim 1.

7-8. (Canceled).

9. (Withdrawn) A composition comprising the polypeptide of claim 1 and a pharmaceutically acceptable carrier.

10. (Canceled).

11. (Original) A composition comprising the nucleic acid of claim 3 and a pharmaceutically acceptable carrier.

12. (Canceled).

13. (Original) A composition comprising the nucleic acid of claim 5 and a pharmaceutically acceptable carrier.

14. (Withdrawn) A composition comprising the antibody of claim 6 and a pharmaceutically acceptable carrier.

15. (Canceled).

16. (Withdrawn) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject, comprising contacting a biological sample from the subject with the polypeptide of claim 1 under conditions whereby an antigen/antibody complex can form and detecting formation of an

antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

17. (Canceled).

18. (Withdrawn) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject comprising contacting a biological sample from the subject with the antibody of claim 6 under conditions whereby an antigen/antibody complex can form and detecting formation of an antigen/antibody complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

19. (Withdrawn and currently amended) A method of diagnosing infection by *Mycoplasma pneumoniae* in a subject comprising contacting a biological sample from the subject with the antibody of claim 7 under conditions whereby an antigen/antibody complex can form and detecting formation of an antigen/antibody complex the nucleic acid of claim 3 under conditions whereby hybridization of nucleic acid molecules can occur and detecting a hybridization complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

20. (Withdrawn and currently amended) A method of diagnosing infection by ~~Myeloplasma~~ *Mycoplasma pneumoniae* in a subject, comprising contacting a biological sample from the subject with the nucleic acid of ~~any of claims 3, 4 or~~ claim 5 under conditions whereby hybridization of nucleic acid molecules can occur and detecting a hybridization complex, thereby diagnosing infection by *Mycoplasma pneumoniae* in the subject.

21. (Withdrawn) A kit for diagnosing an infection by *Mycoplasma pneumoniae* in a subject comprising the polypeptide of claim 1.

22. (Withdrawn) A method of eliciting an immune response in a subject, comprising administering to the subject an effective amount of the polypeptide of claim 1.

23. (Canceled).

24. (Withdrawn) A method of eliciting an immune response in a subject comprising administering to the subject an effective amount of the nucleic acid of claim 3.

25. (Withdrawn and currently amended) A method of eliciting an immune response in a subject comprising administering to the subject an effective amount of the nucleic acid of claim [[4]]5.

26. (Withdrawn) A method of providing passive immunity to a subject, comprising administering to the subject an effective amount of the antibody of claim 6.

27. (Canceled).

28. (Withdrawn) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the polypeptide of claim 1.

29. (Canceled).

30. (Withdrawn) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject comprising administering to the subject an effective amount of the nucleic acid of claim 3.

31. (Withdrawn) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the antibody of claim 6.

32. (Withdrawn and currently amended) A method of treating or preventing infection by *Mycoplasma pneumoniae* in a subject, comprising administering to the subject an effective amount of the ~~antibody of claim 7~~nucleic acid of claim 5.

33-45. (Canceled).